Serial No.: 10/582,580 Att'y Dkt: 56816.1740

AMENDMENTS TO THE CLAIMS

In the Claims:

The following listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended) A glucagon-like peptide-1 receptor agonist having the following structural formula:

wherein, each of Ar_1 and Ar_2 independently is phenyl or substituted phenyl, and the substituent groups of the said substituted phenyl is are one, two or three groups optionally selected from the following group groups: alkyl; hydroxyl; substituted alkoxyl or alkylamino which contains the substituent groups including halogen, alkoxyl or hydroxyl; substituted alkanoylxy or alkanoylamino which contains the substitutent groups including halogen, alkoxyl or hydroxyl; C_2 - C_6 alkenyl substituted with oxygen or amine, phenyl, benzyl, C_2 - C_6 enoyl, C_3 - C_6 cycloalkanoyl, benzoyl, substituted benzoyl which contains optional one, two or three substituent groups including alkoxyl and alkanoylamino, benzyloyl, thenoyl, tert-butoxycarbonyl, adamantane formoxyl, and mandeloyl; alkoxyl; alkylamino; eycloalkoxyl; cycloalkylamino; amino; amide; alkoxycarbonyl; cycloalkoxycarbonyl; alkanoylxy; alkanoylamino; carbamido; urylene; alkanoyl; nitro; carboxyl; and aldehyde group;

Y is O-or S.

2. (Currently amended) The glucagon-like peptide-1 receptor agonist according to the claim 1, being characterized in that wherein:

when
$$Ar_1$$
 is

wherein R_1 is any one of the following substituent groups: H; alkyl; substituted alkyl which contains the substituent groups including halogen, alkoxyl or hydroxyl; C_2 - C_6 alkenyl; C_3 -

 C_6 -cycloalkyl; phenyl; benzyl; alkanoyl; substituted alkanoyl which contains the substituent groups including halogen, alkoxyl or hydroxyl; C_2 - C_6 enoyl; C_3 - C_6 cycloalkanoyl; benzoyl; substituted benzoyl which contains optional one, two or three substituent groups including alkoxyl and alkylamino; tert-butoxycarbonyl; benzyloyl; thenoyl; adamantane formoxyl; and mandeloyl; and X_1 is O or NH,

$$Ar_2$$
 is X_2R_2 ,

wherein R_2 is any one of the following substituent groups: H; alkyl; substituted alkyl which contains the substituent groups including halogen, alkoxyl or hydroxyl; C_2 - C_6 -alkenyl; C_3 - C_6 -cycloalkyl; phenyl; benzyl; alkanoyl; substituted alkanoyl which contains the substituent groups including halogen, alkoxyl or hydroxyl; C_2 - C_6 enoyl; C_3 - C_6 cycloalkanoyl; benzoyl; substituted benzoyl which contains optional one, two or three substituent groups including alkoxyl and alkylamino; tert-butoxycarbonyl; benzyloyl; thenoyl; adamantane formoxyl; and mandeloyl; and X_2 is O or NH;

or Ar₂ is
$$\frac{x_1R_3}{x_2R_4}$$

wherein each of R_3 and R_4 independently is any one of the following substituent groups: H_7 ; alkyl; substituted alkyl which contains the substituent groups including halogen, alkoxyl or hydroxyl; C_2 - C_6 alkenyl; C_3 - C_6 cycloalkyl; $\frac{1}{2}$ phenyl; benzyl; alkanoyl; substituted alkanoyl which contains the substituent groups including halogen, alkoxyl or hydroxyl; C_2 - C_6 enoyl; C_3 - C_6 cycloalkanoyl; benzoyl; substituted benzoyl which contains optional one, two or three substituent groups including alkoxyl and alkylamino; tert-butoxycarbonyl; benzyloyl; thenoyl; adamantane formoxyl; and mandeloyl; and X_1 is O or NH; X_2 is O or NH.

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3. (Currently amended) The glucagon-like peptide-1 receptor agonist according to the claim 1, being characterized in that, wherein:

when
$$Ar_1$$
 is

wherein each of R_5 and R_6 independently is any one of the following substituent groups: H; alkyl; substituted alkyl which contains the substituent groups including halogen, alkoxyl or hydroxyl; C_2 - C_6 alkenyl; C_3 - C_6 cycloalkyl; phenyl; benzyl; alkanoyl; substituted alkanoyl which contains the substituent groups including halogen, alkoxyl or hydroxyl; C_2 - C_6 enoyl; C_3 - C_6 cycloalkanoyl; benzoyl; substituted benzoyl which contains optional one, two or three substituent groups including alkoxyl and alkylamino; tert-butoxycarbonyl; benzyloyl; thenoyl; adamantane formoxyl; and mandeloyl; and X_1 is O or NH; X_2 is O or NH,

$$Ar_2$$
 is

wherein R_2 is any one of the following substituent groups: H; alkyl; substituted alkyl which contains substituent groups including halogen, alkoxyl or hydroxyl; C_2 - C_6 alkenyl; C_3 - C_6 eycloalkyl; phenyl; benzyl; alkanoyl; substituted alkanoyl which contains substituent groups including halogen, alkoxyl or hydroxyl; C_2 - C_6 enoyl; C_3 - C_6 cycloalkanoyl; benzoyl; substituted benzoyl which contains optional one, two or three substituent groups including alkoxyl and alkylamino; tert-butoxycarbonyl; benzyloyl; thenoyl; adamantane formoxyl; and mandeloyl; and X_2 is O or NH;

wherein each of R_3 and R_4 independently is any one of the following substituent groups: H; alkyl; substituted alkyl which contains substituent groups including halogen, alkoxyl or hydroxyl; C_2 - C_6 alkenyl; C_3 - C_6 cycloalkyl; phenyl; benzyl; alkanoyl; substituted alkanoyl which contains the substituent groups including halogen, alkoxyl or hydroxyl; C_2 - C_6 enoyl; C_3 - C_6 cycloalkanoyl; benzoyl; substituted benzoyl which contains optional one, two or three substituent groups including alkoxyl and alkylamino; tert-butoxycarbonyl; benzyloyl; thenoyl; adamantane formoxyl; and mandeloyl; and X_1 is O or NH; X_2 is O or NH.

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4-8. (Canceled).

- 9. (Original) Use of the glucagon-like peptide-1 receptor agonist according to claim 1 as medicaments for treating the carbohydrate metabolism disturbance-related diseases such as type II diabetes, insensitivity to insulin or obesity, etc.
- 10. (New) The glucagon-like peptide-1 receptor agonist according to the claim 1 having the following structural formula:

$$X_3R_3$$
 X_1R_2
 X_1R_2

wherein R_1 is any one of the following substituent groups: alkanoyl; substituted alkanoyl which contains the substituent groups including halogen, alkoxyl or hydroxyl; C_2 - C_6 enoyl; C_3 - C_6 cycloalkanoyl; benzoyl; substituted benzoyl which contains optional one, two or three substituent groups including alkoxyl and alkylamino; tert-butoxycarbonyl; thenoyl; adamantane formoyl; and mandeloyl;

each of R_2 and R_3 independently is any one of the following substituent groups: alkyl; substituted alkyl which contains substituent groups including halogen, alkoxyl or hydroxyl; C_3 - C_6 cycloalkyl; alkanoyl; substituted alkanoyl which contains the substituent groups including halogen, alkoxyl or hydroxyl; C_2 - C_6 enoyl; C_3 - C_6 cycloalkanoyl; benzoyl; substituted benzoyl which contains optional one, two or three substituent groups including alkoxyl and alkylamino; tert-butoxycarbonyl; thenoyl; adamantane formoyl; and mandeloyl;

X is O;

Y is O;

 X_1 is O;

X₂ is NH;

 X_3 is O.

11. (New) The glucagon-like peptide-1 receptor agonist according to the claim 1 having the following structural formula: